



US006165536A

United States Patent [19]

Heeb et al.

[11] **Patent Number:** **6,165,536**

[45] **Date of Patent:** **Dec. 26, 2000**

[54] **EXTRACTION PRODUCT AND PROCESS**

[75] Inventors: **Thomas G. Heeb**, Marysville; **Zenon Ioannis Mandralis**, Dublin, both of Ohio

[73] Assignee: **Nestec S.A.**, Vevey, Switzerland

[21] Appl. No.: **09/313,539**

[22] Filed: **May 14, 1999**

Related U.S. Application Data

[62] Division of application No. 08/962,696, Nov. 3, 1997, Pat. No. 5,997,929.

[51] **Int. Cl.⁷** **A23F 5/00**

[52] **U.S. Cl.** **426/594; 426/658**

[58] **Field of Search** 426/594, 658

[56] References Cited

U.S. PATENT DOCUMENTS

2,629,663	2/1953	Folger et al.	99/71
2,924,541	2/1960	Kaether et al. .	
3,148,069	9/1964	Sjogren et al.	99/71
3,862,347	1/1975	Thijssen	426/434
4,158,067	6/1979	Ghodsizadeh et al.	62/541
4,830,645	5/1989	Ghodsizadeh et al.	62/541
5,151,287	9/1992	Schlecht et al.	426/434
5,997,929	12/1999	Heeb et al. .	

FOREIGN PATENT DOCUMENTS

0 363 529 4/1990 European Pat. Off. .

2 263 016	10/1975	France .
2 364 620	4/1978	France .
19 59 024	5/1971	Germany .
1500260	2/1978	United Kingdom .

OTHER PUBLICATIONS

Database Abstract. Derwent-Acc-No: 1987-170983 for DE 3544265. Inventor: Bonne, Jun. 19, 1987.

The Structure and Composition of Foods. p. 142. Winton et al., Jun. 19, 1987.

G. Pictet, Les hydrates de carbone du café instantane, 7th International Colloquim of Coffee, p. 189-200, (1976).

M. Blanc, "Chromatographic profile of carbohydrates in commercial soluble coffees" Journal of Agricultural and Food Chemistry, vol. 37, p. 926-930, (1989).

U. Kroplin, "Monosaccharides in roasted and instant coffees", Journal of Agricultural and Food Chemistry, vol. 22, No. 1, p. 110-116, (1974).

J. Prodolliet, "Determination of free and total carbohydrate profile in soluble coffee", Journal of the AOC International, vol. 78, No. 3, p. 749-761, (1995).

Primary Examiner—Anthony J. Weier

Attorney, Agent, or Firm—Pennie & Edmonds LLP

[57] ABSTRACT

A soluble coffee product containing carbohydrates obtained exclusively from roasted coffee beans, at least about 40% by weight of total sugars of which at least about 5.5%, by weight are free sugars, and at least about 10% by weight are mono, di and oligosaccharides containing 3 to 10 saccharide units.

6 Claims, 4 Drawing Sheets